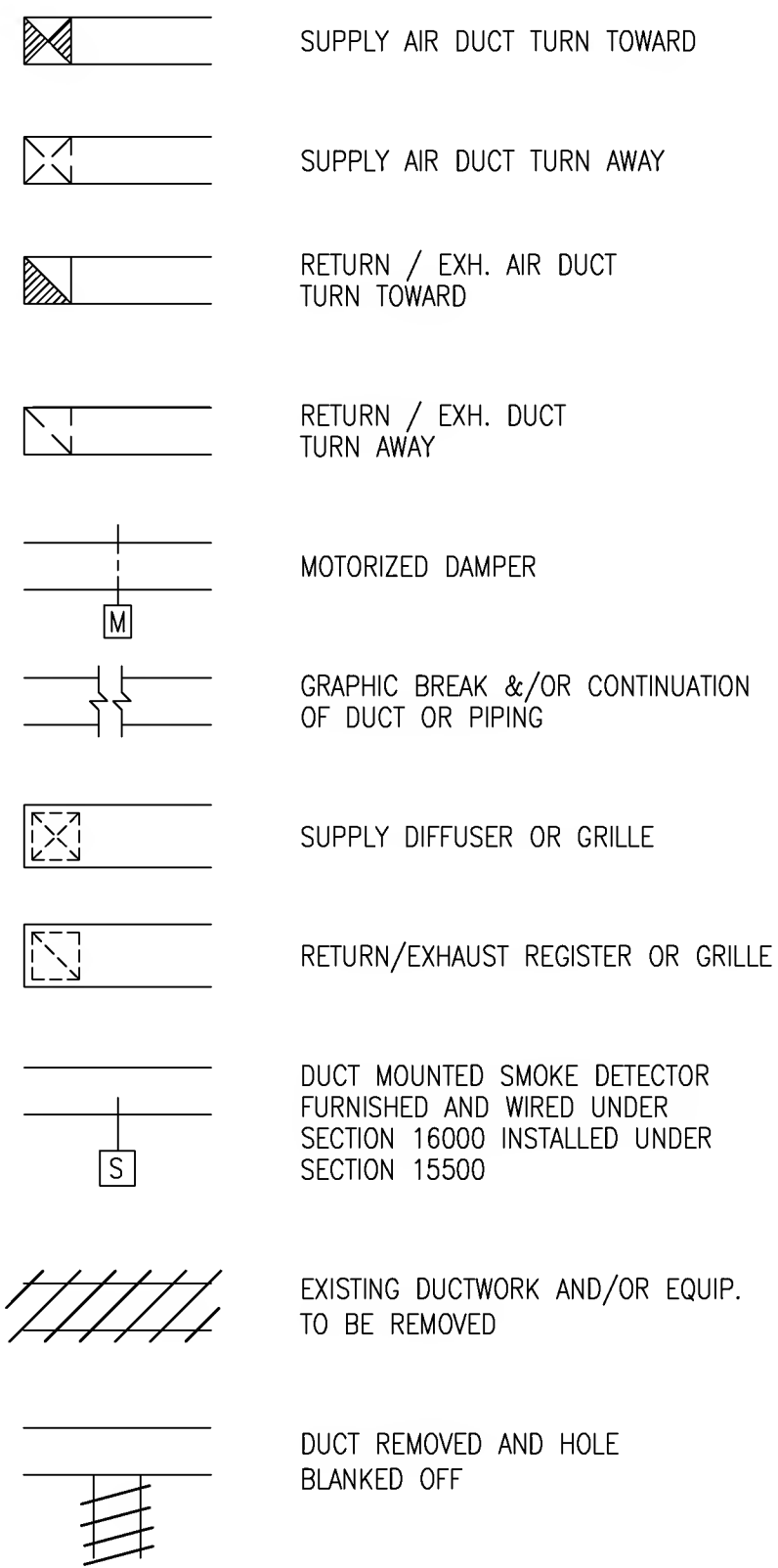


GENERAL MECHANICAL NOTES

APPLICABLE TO ALL DRAWINGS

1. THE HVAC CONTRACTOR SHALL INVESTIGATE AVAILABLE SPACE FOR ALL EQUIPMENT IN CEILINGS BEFORE SUBMISSION OF SHOP DRAWINGS.
2. ADEQUATE SIZE ACCESS PANELS SHALL BE FURNISHED AND INSTALLED FOR ALL EQUIPMENT REQUIRING SERVICE, MAINTENANCE AND REPLACEMENT FOR THE BALANCING OF VALVES AND FOR THE OPERATION OF HVAC SYSTEMS AS PER THE SPECIFICATIONS.
3. DUCT SIZES INDICATED ON THE DRAWINGS ARE TO BE NET FREE AREA. ALL DUCTWORK SHALL BE CONSTRUCTED, INSTALLED AND SEALED (CLASS A), PER THE LATEST SMACNA REQUIREMENTS.
4. PARTICULAR ATTENTION SHOULD BE PAID TO ADDITIONAL NOTES SHOWN ON THE INDIVIDUAL DRAWINGS.
5. THE DUCTWORK AND PIPING SYSTEMS SHOWN ON THE DRAWINGS ARE SHOWN DIAGRAMMATICALLY WITHOUT EVERY OFFSET AND TRANSITION REQUIRED TO INSTALL THE WORK. OBVIOUS OFFSETS AND TRANSITIONS, AS RELATED TO HVAC, ARE SHOWN WHERE POSSIBLE WITHOUT AFFECTING THE CLARITY OF THE DRAWINGS.
6. ALL PIPING AND DUCTWORK SHALL BE RUN ABOVE THE CEILINGS UNLESS NOTED OTHERWISE.
7. ALL THERMOSTATS TO BE MOUNTED ABOVE LIGHT SWITCHES ON SAME CENTERLINE, 4'-0" ABOVE FINISHED FLOOR WHERE APPLICABLE, OR OTHERWISE NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
8. ALL MATERIALS INSTALLED IN THIS WORK SHALL BE NEW UNLESS SPECIFICALLY NOTED FOR RE-USE.
9. ALL WORK PERFORMED SHALL BE GUARANTEED FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER, UNLESS SUCH DEFECTS ARE CLEARLY THE RESULT OF MISUSE OF EQUIPMENT BY PERSONS NOT UNDER THE CONTROL OF THE CONTRACTOR.
10. THE HVAC CONTRACTOR SHALL OBTAIN INSTALLATION INSTRUCTIONS ON EACH PIECE OF EQUIPMENT TO BE FURNISHED WHICH THE HVAC CONTRACTOR IS REQUIRED TO INSTALL OR TO WHICH FINAL CONNECTIONS ARE TO BE MADE UNDER THE HVAC CONTRACT. THE HVAC CONTRACTOR SHALL INSTALL AND MAKE FINAL CONNECTIONS PER THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. THE CONTRACTOR SHALL DEMONSTRATE TO THE OWNER THAT THE INSTALLED EQUIPMENT OPERATES AS DESIGNED.
11. ALL WORK UNDER THIS SECTION SHALL BE COORDINATED WITH ALL OTHER TRADES BEFORE INSTALLATION IS MADE.
12. COORDINATE ALL MOTORS, STARTERS, DISCONNECT AND SMOKE DETECTOR REQUIREMENTS WITH ELECTRICAL SUBCONTRACTOR FOR ALL EQUIPMENT REQUIRING SAME.
13. ALL HVAC EQUIPMENT SHALL BE INSTALLED, COORDINATED WITH ALL TRADES, IN SUCH A WAY SO THAT LIGHTS, CONDUITS, SPRINKLERS, SUPPLY AND/OR DRAIN PIPING DO NOT BLOCK ACCESS TO UNITS AND RELATED ACCESSORIES.
14. THE HVAC CONTRACTOR SHALL FURNISH ALL SUPPORT STEEL REQUIRED FOR THE INSTALLATION OF HVAC EQUIPMENT, UNLESS OTHERWISE INDICATED.
15. THE HVAC CONTRACTOR SHALL FIELD MEASURE ALL DUCT RUNS PRIOR TO FABRICATING DUCTWORK. FURNISH AND INSTALL ALL DUCT TRANSITIONS, ELBOWS, FITTINGS AND OFFSETS REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
16. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING AND STAGING REQUIRED FOR THE INSTALLATION OF THE HVAC SYSTEMS.
17. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHEETMETAL TRANSITIONS AT AIR TERMINAL UNITS, FANS, COILS AND OTHER SIMILAR HVAC EQUIPMENT.
18. HVAC EQUIPMENT WITH FANS TO BE PROVIDED WITH FLEXIBLE CONNECTIONS ON INLET AND DISCHARGE OF FAN TO DUCTWORK.

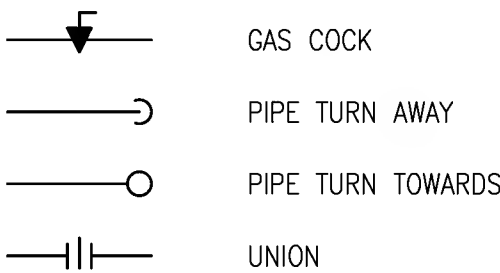
SHEETMETAL



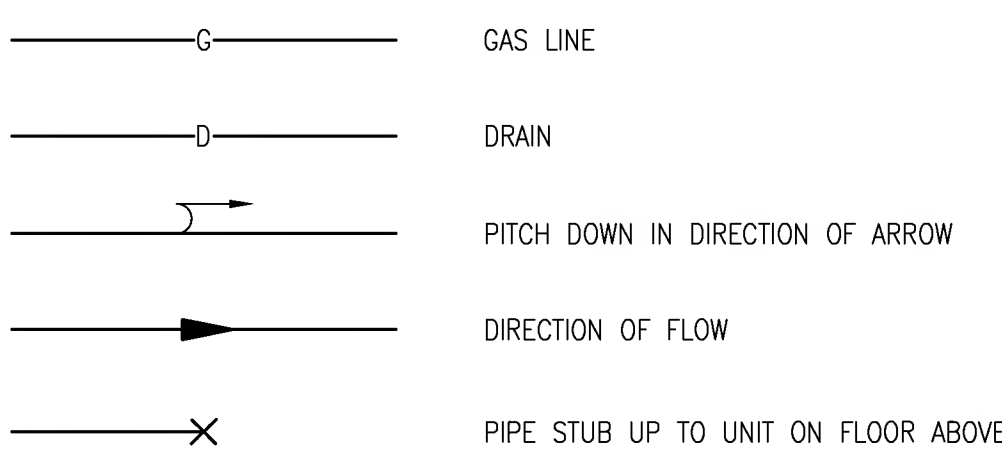
ABBREVIATIONS

| | | | |
|------|--|-----|--------------------------------|
| AHU | AIR HANDLING UNIT | LAT | LEAVING AIR TEMP. DEGREES F. |
| AP | ACCESS PANEL | LWT | LEAVING WATER TEMP. DEGREES F. |
| ATC | AUTOMATIC TEMPERATURE CONTROL CONTRACTOR | MAX | MAXIMUM |
| CFM | CUBIC FEET PER MINUTE | MIN | MINIMUM |
| DB | DRY BULB TEMP. DEGREES F. | OA | OUTSIDE AIR |
| E | EXHAUST AIR DEVICE | PD | PRESSURE DROP (FEET OF WATER) |
| EAT | ENTERING AIR TEMP. DEGREES F. | R | RETURN AIR DEVICE |
| EC | ELECTRICAL CONTRACTOR | RF | RETURN FAN |
| EWT | ENTERING WATER TEMP. DEGREES F. | RH | REHEAT COIL |
| GC | GENERAL CONTRACTOR (HVAC CONTRACTOR) | S | SUPPLY AIR DEVICE |
| GPM | GALLONS PER MINUTE | VFD | VARIABLE FREQUENCY DRIVE |
| HVAC | HEATING, VENTILATING & AIR CONDITIONING CONTRACTOR | WB | WET BULB TEMP. DEGREES F. |

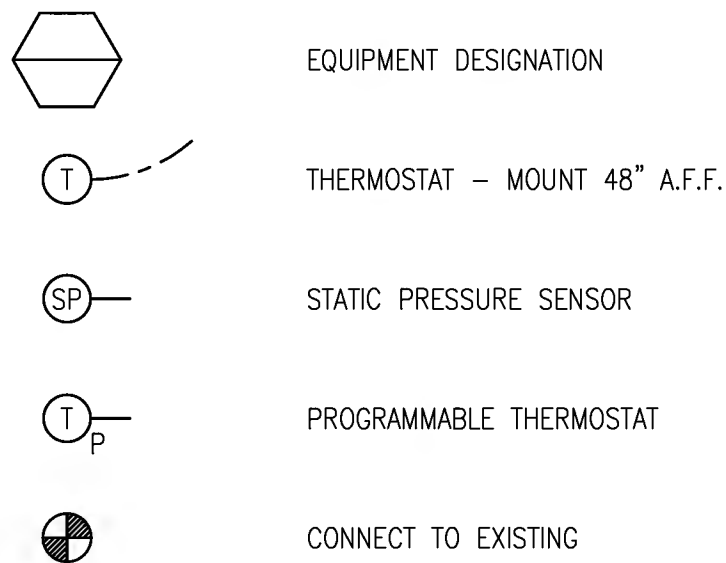
VALVES



PIPING

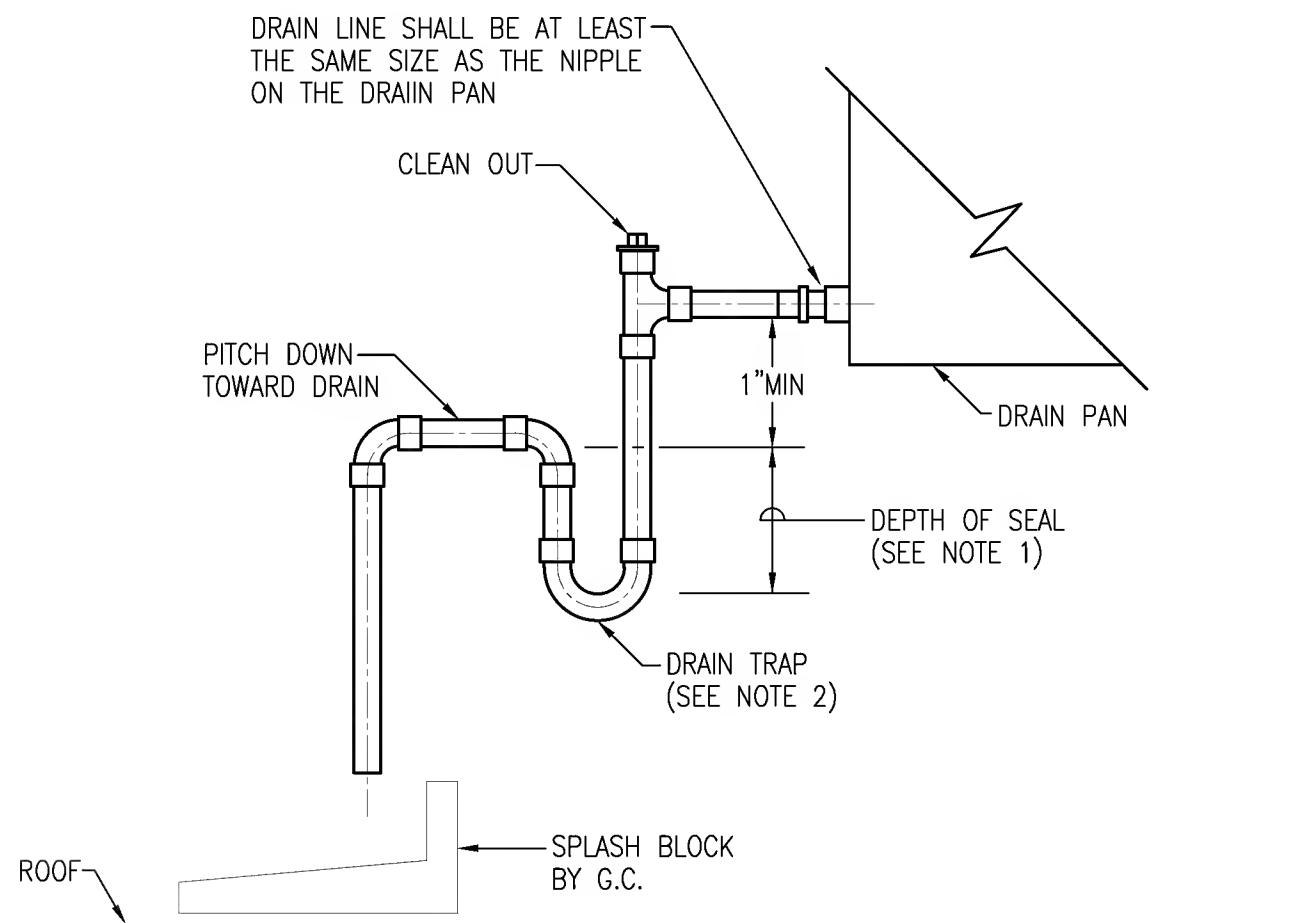


GENERAL



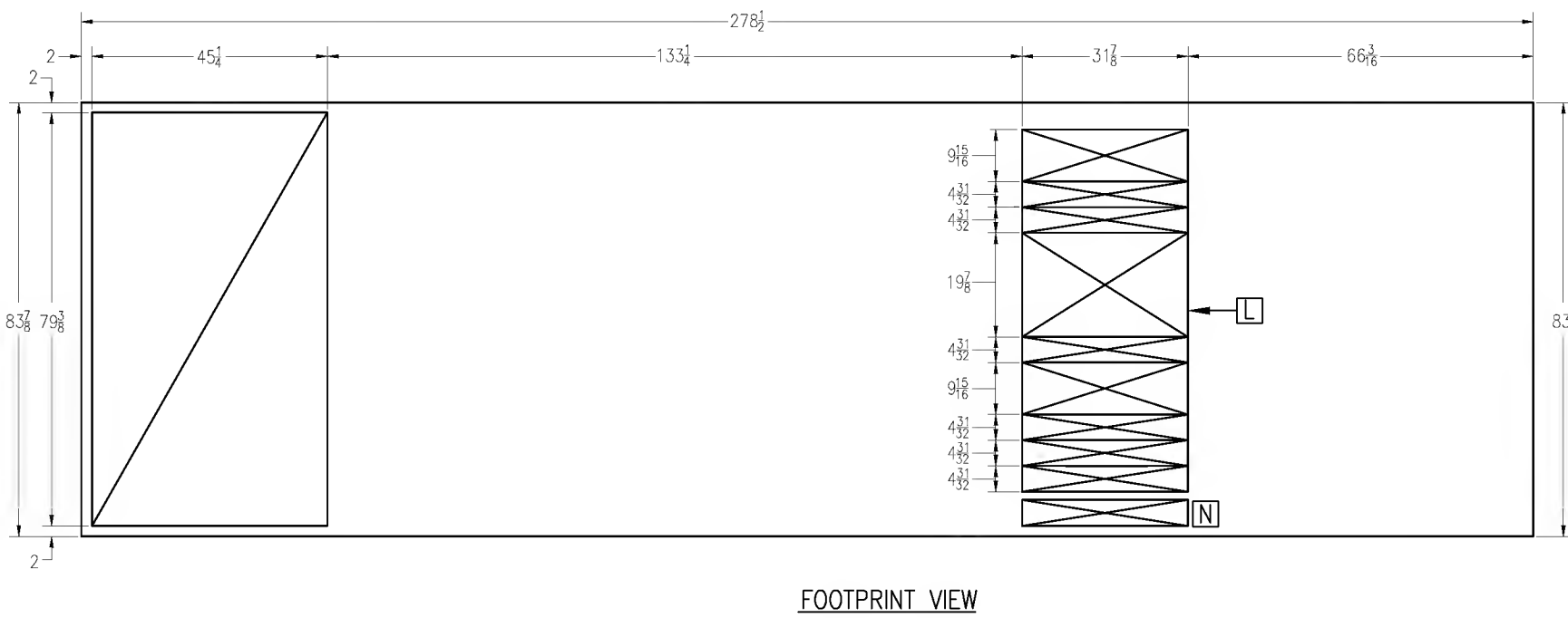
DRAWING LIST

| | |
|------|--|
| ME-1 | MECHANICAL DETAILS, LEGEND & GENERAL NOTES |
| ME-2 | MECHANICAL DEMOLITION & RENOVATION PLANS |

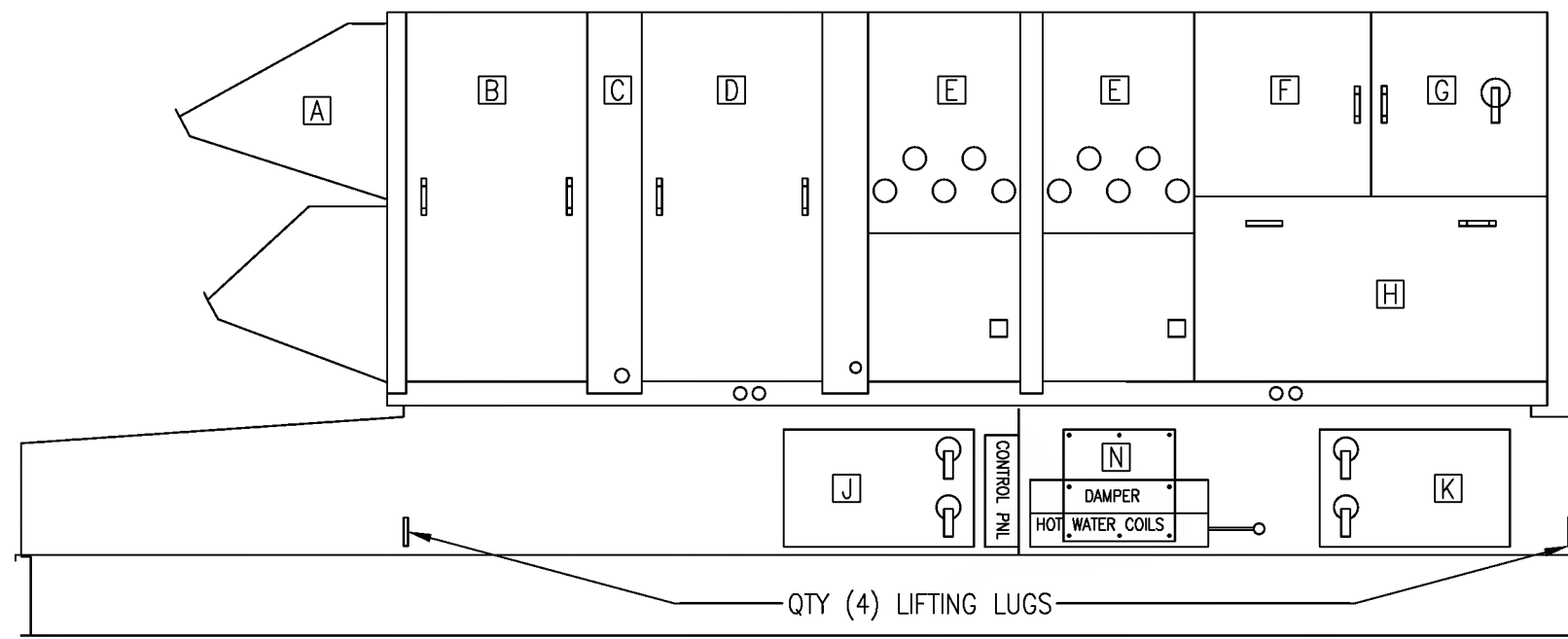


- NOTE:
1. THE DEPTH OF THE SEAL SHALL BE A MINIMUM OF THE ROOFTOP AIR HANDLING UNIT'S TOTAL STATIC PRESSURE IN INCHES OF WATER PLUS 3".
 2. MANUALLY PRIME FILL TRAP PRIOR TO START-UP OF UNIT.

ROOFTOP AIR HANDLING UNIT
COOLING COIL DRAIN TRAP DETAIL
N.T.S.



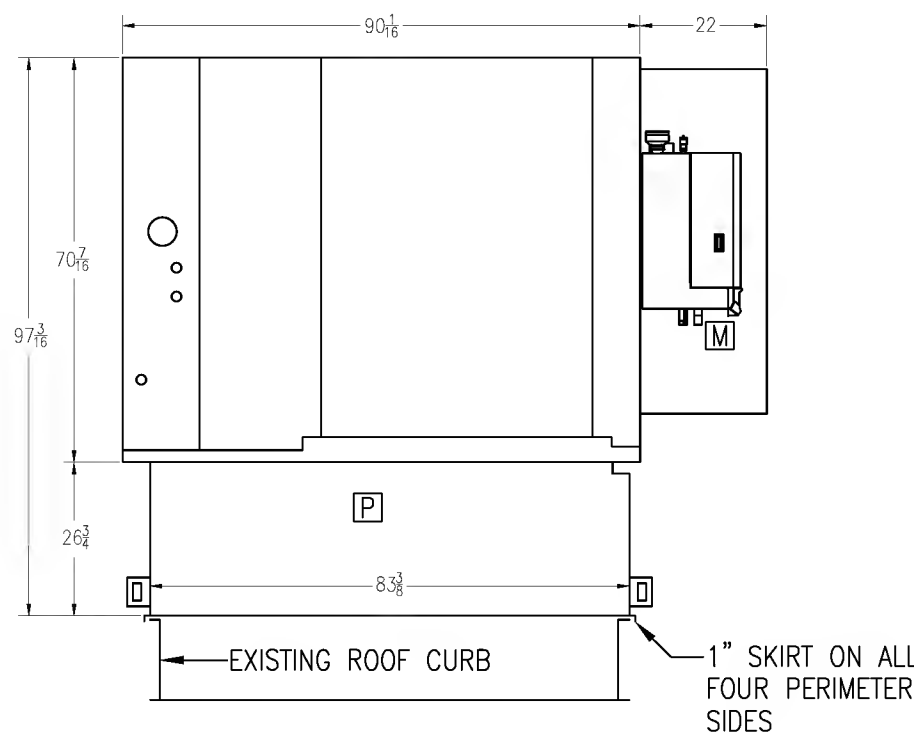
FOOTPRINT VIEW



SIDE VIEW

ESTIMATED UNIT WEIGHTS: 8814 LBS
REQUIRED CLEARANCES AROUND UNIT: 6 FEET

ROOFTOP AIR HANDLING UNIT DETAIL (RTU-4)
N.T.S.



END VIEW



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Wareham, MA 02571
508-295-0050 (T)
508-295-0003 (F)

OTTOSON
MIDDLE
SCHOOL

RTU Replacement
Arlington, MA

Notes:

North Arrow

Keyplan

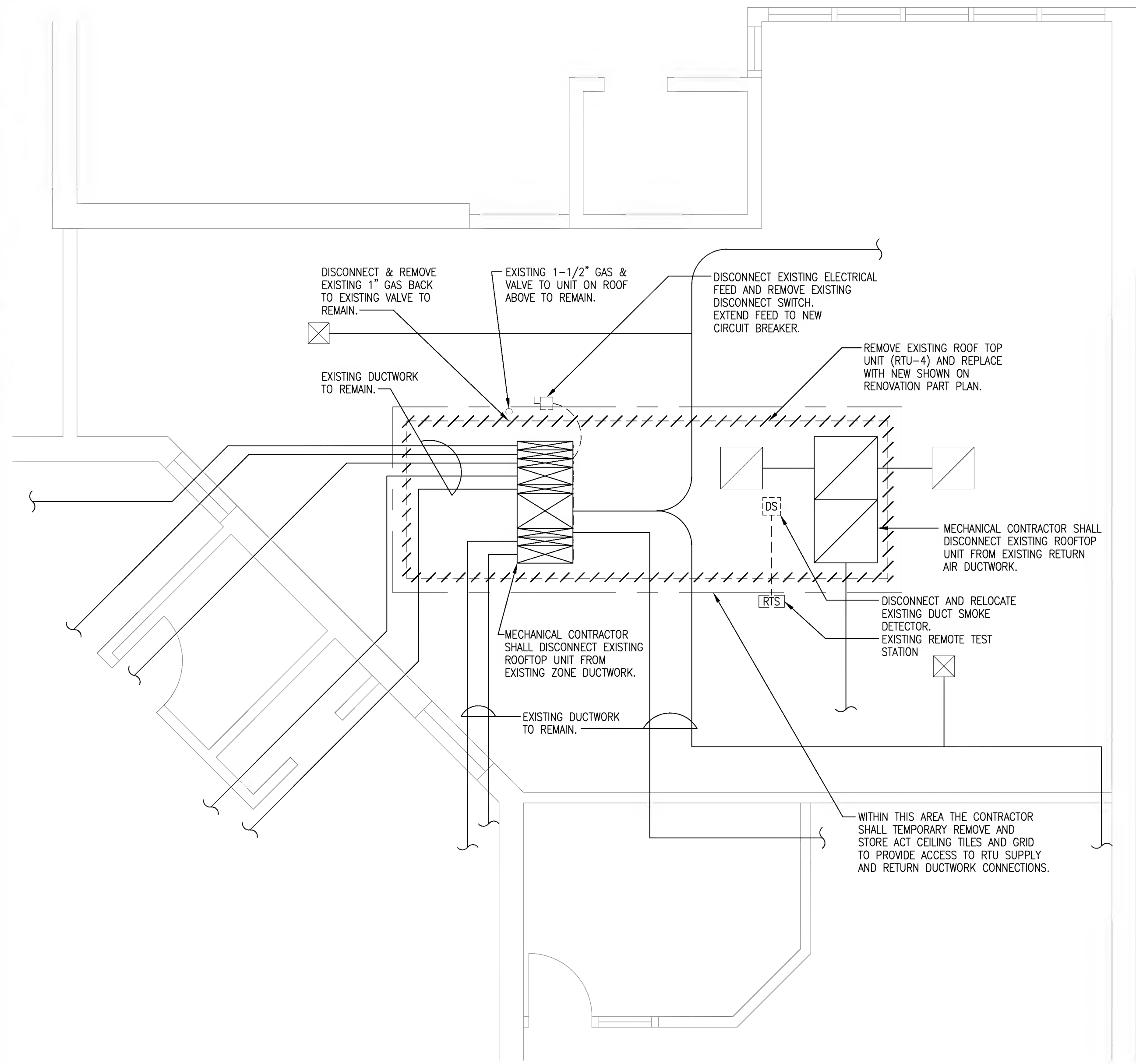
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MECHANICAL
DETAILS, LEGEND
& GENERAL NOTES

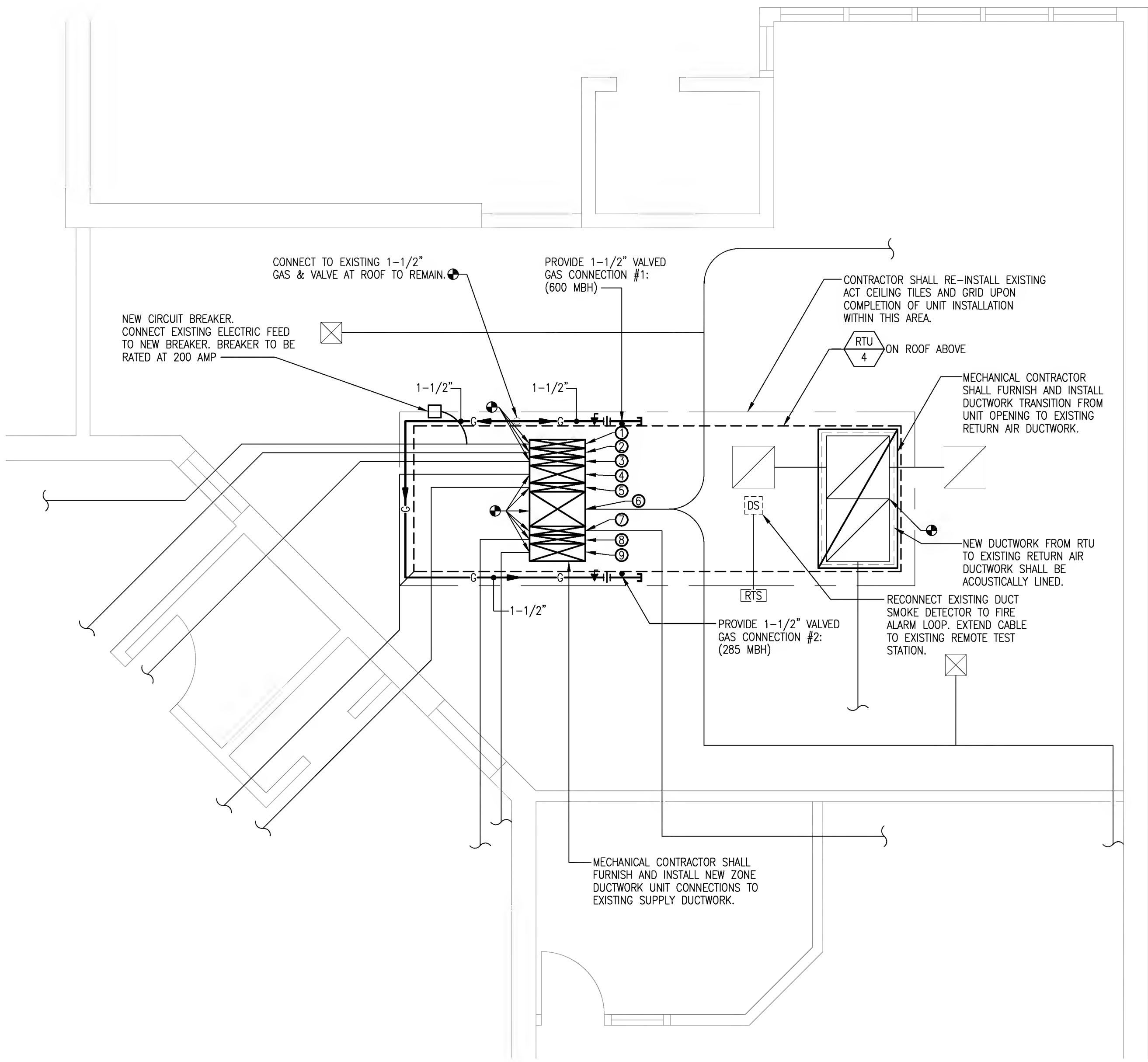
Scale: NONE
Job No: 1GV-209
Drawn By: JAJ
Date: June 27, 2018

Drawing Number:

ME-1



DEMOLITION PLAN
SCALE: 1/4"=1'-0"



RENOVATION PLAN
SCALE: 1/4"=1'-0"

MULTIZONE INDIVIDUAL ZONE SCHEDULE

| TAG# | ZONE | DAMPER BLADE COUNT | DUCT LENGTH (IN.) | DUCT WIDTH (IN.) | MAXIMUM AIRFLOW (CFM) | MINIMUM AIRFLOW (CFM) | HEATING MAX AIRFLOW 100% (CFM) | ZONE VELOCITY (FPM) | COIL EAT (°F) | COIL LAT (°F) | REHEAT CAPACITY (MBH) | COIL FLOW (GPM) | NOTES |
|------|---------|--------------------------|-------------------------|------------------------|-----------------------------|-----------------------------|--------------------------------------|---------------------------|---------------------|---------------------|-----------------------------|-----------------------|--|
| | MZU-1 | 4.97 | | | | | | | | | | | |
| 1 | ZONE 01 | 1 | 31.87 | 4.97 | 600 | 60 | 600 | 545 | 55 | 95 | 26.0 | 2.60 | EXISTING ZONE THERMOSTATS, WHICH CONTROL ZONE DAMPERS 1 THROUGH 9 SHALL BE REPLACED WITH NEW DDC THERMOSTATS TO CONTROL NEW ZONE DAMPERS AND ZONE REHEAT COILS. |
| 2 | ZONE 02 | 1 | 31.87 | 4.97 | 650 | 65 | 650 | 591 | 55 | 95 | 28.2 | 2.82 | |
| 3 | ZONE 03 | 1 | 31.87 | 4.97 | 530 | 53 | 530 | 482 | 55 | 95 | 23.0 | 2.30 | |
| 4 | ZONE 04 | 2 | 31.87 | 9.94 | 740 | 74 | 740 | 336 | 55 | 95 | 32.1 | 3.21 | |
| 5 | ZONE 05 | 1 | 31.87 | 4.97 | 450 | 45 | 450 | 409 | 55 | 95 | 19.5 | 1.95 | |
| 6 | ZONE 06 | 4 | 31.87 | 19.88 | 3290 | 329 | 3290 | 748 | 55 | 95 | 142.8 | 14.28 | |
| 7 | ZONE 07 | 1 | 31.87 | 4.97 | 500 | 50 | 500 | 455 | 55 | 95 | 21.7 | 2.17 | |
| 8 | ZONE 08 | 1 | 31.87 | 4.97 | 800 | 80 | 800 | 727 | 55 | 95 | 34.7 | 3.47 | |
| 9 | ZONE 09 | 2 | 31.87 | 9.94 | 900 | 90 | 900 | 409 | 55 | 95 | 39.1 | 3.91 | |
| | | 14 | | 69.58 | 8460 | | | | | | 367.2 | 36.72 | |

(2) 199 MBH INPUT @ 95% EFF

PACKAGED MULTI-ZONE ROOFTOP UNIT SCHEDULE

| ITEM | MFG'R | MODEL | SERVICE | CFM | | SUPPLY FAN DATA | | | | | EXH. FAN HP | COOLING COIL DATA | | | | | | CONDENSER FAN DATA | | | AMBIENT DATA | | COMPRESSOR DATA | | | FILTER DATA | | GAS FURNACE HEATING DATA | | | | ELECTRICAL DATA | | | | | REMARKS |
|-------|-------|--------|---------|----------|-------------|-----------------|------|-------|-------|------|-------------|-------------------|--------|------|------|---------|---------|--------------------|---------|---------|-----------------|------|-----------------|---------|---------|-------------|-----------|--------------------------|--------|---------|--------|-----------------|---|----|------|---|---------|
| | | | | SUP. AIR | O.A. (MIN.) | E.S.P. ("WC) | H.P. | RPM | DRIVE | TYPE | | MBH | | EAT | | LAT | | QTY. | HP (EA) | REFRIG. | DESIGN OA DB/WB | QTY. | TYPE | RLA EA. | TYPE | THICK | MBH INPUT | MBH OUTPUT | EAT | LAT | MCA | V | Ø | Hz | MOCP | | |
| | | | | | | | | | | | | TOTAL | SENS | DB | WB | DB | WB | | | | | | | | | | | | | | | | | | | | |
| RTU-4 | TRANE | YCD330 | ADMIN. | 8,460 | 2,115 | 1.4" | 7.5 | 1,760 | BELT | FC | 2 @ 1.0 | 301.34 | 223.37 | 80°F | 66°F | 58.15°F | 55.14°F | 3 | 1.1 | R410A | 91°F/73°F | 3 | SCROLL | - | MERV 13 | 4" | 600 | 480 | 48.0°F | 100.7°F | 158.53 | 208 | 3 | 60 | 200 | ① | |

1 UNIT SHALL BE PROVIDED WITH PACKAGED DDC CONTROLS, HOT WATER REHEAT SECTION AND POWERED EXHAUST FAN FOR ECONOMIZER OPERATION. REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.



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RTU Replacement
Arlington, MA

Notes:

North Arrow

Keyplan

Drawing Name:

MECHANICAL
DEMOLITION &
RENOVATION
PLANS

Scale: As Noted

Job No: 1GV-209

Drawn By: JAJ

Date: June 27, 2018

Drawing Number:

ME-2